

**Committee of Experts on the Transport of Dangerous Goods  
and on the Globally Harmonized System of Classification  
and Labelling of Chemicals**

**Sub-Committee of Experts on the Transport of Dangerous Goods**

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Item 7 of the provisional agenda

**Global harmonization of transport of dangerous goods  
regulations with the Model Regulations**

## **Harmonization of RID/ADR/ADN with the 20th revised edition of the United Nations Recommendations on the Transport of Dangerous Goods, Model Regulations**

### **Note by the secretariat**

1. The RID/ADR/ADN Joint Meeting ad hoc Working Group on the harmonization of RID/ADR/ADN with the United Nations Recommendations on the Transport of Dangerous Goods met in Geneva from 25 to 27 April 2017. Its report and proposed amendments to the RID/ADR/ADN Joint Meeting will be submitted to the autumn session of the Joint Meeting (19–29 September 2017) under symbols ECE/TRANS/WP.15/AC.1/2017/26 (report) and -/Add.1 (proposed amendments).
2. During the working group session, some issues were raised and the secretariat was invited to bring them to the attention of the Sub-Committee for resolution before their discussion by the Joint Meeting.
3. The Sub-Committee may wish to consider the issues raised in paragraphs 10, 13, 14, 18, 19, 20, 29, 30 and 31 of the report and related proposals as reproduced hereafter. Additional information and comments are provided in *italics*.
4. The Sub-Committee may also wish to consider the proposals of corrections to the 20<sup>th</sup> revised edition of the United Nations Recommendations on the transport of Dangerous Goods made by the working group which are reproduced in annex II.

**Lithium batteries installed in cargo transport units**

10. The Working Group felt that it would be useful to insert a note in 2.2.9.1.7 [of RID/ADR/ADN] referring to special provision 389 of Chapter 3.3 since this special provision explains the scope of the entry UN 3536. This could be brought to the attention of the United Nations Sub-Committee of Experts on the Transport of Dangerous Goods as such a note would be useful in the Model Regulations as well.

Proposal:

Under the title “2.9.4 Lithium batteries”, insert the following Note:

**“NOTE:** For UN 3536 LITHIUM BATTERIES INSTALLED IN CARGO TRANSPORT UNIT, see special provision 389 in Chapter 3.3.”.

**Special provision 188, paragraph (c).**

13. The Working Group felt that compliance with the provisions of the new 2.2.9.1.7 (f) and (g) [UN 2.9.4 (f) and (g)] should be required in special provision 188 (c) as a condition for exemption of lithium cells and batteries and proposed to amend special provision 188 accordingly, and to bring this to the attention of the United Nations Sub-Committee of Experts on the Transport of Dangerous Goods.

Proposal:

In special provision 188 (c) of Chapter 3.3, replace “2.9.4 (a) and (e)” by “2.9.4 (a), (e), (f) and (g)”.

**Carriage of fuel gas containment systems**

14. The Working Group noted that the new special provision 392 would replace the current special provision 660 of RID/ADR/ADN, therefore it felt that it should be assigned to all UN numbers to which special provision 660 is currently assigned, including UN No. 1972 (methane, refrigerated liquid or natural gas, refrigerated liquid) to which special provision 392 has not been assigned in the United Nations Model Regulations. The Working Group noted also that ECE regulation No. 110 had been amended to cover vehicles using liquefied natural gas (LNG) in their propulsion system and considered that the table in special provision 392 (a) should be amended accordingly. This should also be brought to the attention of the United Nations Sub-Committee of Experts on the Transport of Dangerous Goods.

*[See proposed corrections in the annex to this document.]*

**Special provision 387 (lithium batteries in conformity with new 2.2.9.1.7 (f))**

18. The Working Group felt that a NOTE should be inserted under paragraphs (a) and (b) of special provision 188 to draw attention to the contents and capacity limits of special provision 387 for lithium batteries in conformity with 2.2.9.1.7 (f) [UN 2.9.4 (f)]. The insertion of such a note in the Model Regulations would also be useful.

Proposal:

In special provision 188 of chapter 3.3, add a Note under sub-paragraphs (a) and (b) to read:

**“NOTE:** When lithium batteries in conformity with 2.9.4 (f) are carried in accordance with this special provision, the total lithium content of all lithium metal cells contained in

*the battery shall not exceed 1.5 g and the total capacity of all lithium ion cells contained in the battery shall not exceed 10 Wh (see special provision 387).”.*

### **New provisions concerning the carriage of articles containing dangerous goods, not otherwise specified**

19. The Working Group felt that it would be more appropriate to refer to “classification” rather than to “transport” in the new section 2.1.5 (2.0.5 of the Model Regulations).

*[See proposed corrections in the annex to this document.]*

20. The Working Group noted that, according to the NOTE under the title of 2.0.5 of the Model Regulations, articles containing dangerous goods within the permitted limited quantity amounts specified in column (7a) of Table A of Chapter 3.2 of ADR/RID/ADN could be carried under UN No. 3363 as indicated in special provision 301 of the Model Regulations, as “dangerous goods in machinery” or “dangerous goods in apparatus”. However, such machinery and apparatus are currently not subject to RID/ADR/ADN as they are exempted by 1.1.3.1 (b), in conformity with the last sentence of special provision 301 of the Model Regulations according to which the competent authority may exempt from regulation machinery or apparatus which would otherwise be carried under UN No. 3363. The representative of Germany felt that the proper shipping name for UN No. 3363 should be modified to cover “dangerous goods in devices” to be in line with the new 2.1.5.1 which defines, for the new entries for articles, “article” as “machinery, apparatus or other devices”. However, the Working Group considered that he should first raise this issue with the United Nations Sub-Committee of Experts on the Transport of Dangerous Goods.

*[See informal document INF.14.]*

### **Amendments to P200 (3) (e) and P206 (3) of 4.1.4.1**

29. The Working Group noted that the current text of P200 (3) (e) and P206 (3) of 4.1.4.1 of RID/ADR was correct, and that only the corresponding texts of the Model Regulations had to be amended. Furthermore, the amendment to P206 (3) as drafted in ST/SG/AC.10/44/Add.1 had to be corrected by the secretariat.

*[This is already corrected in the published 20<sup>th</sup> revised edition of the Model Regulations.]*

### **Packing instructions P907, P911, LP905, LP906**

30. The Working Group suggested editorial amendments that should be brought to the attention of the United Nations Sub-Committee of Experts on the Transport of Dangerous Goods. Similar modifications might concern LP903 and LP904 as well. Some participants requested clarification of the interpretation of paragraph (1) (a) of LP905, in particular of what was meant by “battery of different size, shape or mass” since in practice the large packaging is not tested with a battery inside.

*[See proposed corrections in the annex to this document.]*

### **Placarding of cargo transport units containing lithium batteries**

31. It was recalled that, according to the IMDG Code, RID, ADR and ADN, the placard to be affixed to cargo transport units containing lithium batteries of UN Nos 3090, 3091, 3480 and 3481 was that corresponding to label model No.9 and not that corresponding to label No.9A, but this had not been brought to the attention of the United Nations Sub-Committee. The Model Regulations were not very clear in this respect and could be interpreted as requiring that the placard to be affixed correspond to model No.9A. This

should be brought to the attention of the United Nations Sub-Committee. For the new UN No.3536, lithium batteries installed in cargo transport unit, special provision 389 indicated that lithium batteries installed in the cargo transport unit need not be marked nor labelled, and therefore the Working Group assumed that the placard to be affixed was that corresponding to label No.9 rather than No.9A, but this might need to be clarified with the United Nations Sub-Committee in relation to the interpretation of 5.3.1.2.1 of the Model Regulations.

## Annex

### Proposals of corrections

#### Chapter 1.4, 1.4.3.2.1, in the Note, last sentence

For the existing text, *substitute*

*In order to not impede international and multimodal transport by different explosives security ~~markings~~marks, it is recommended that such ~~markings~~marks be formatted consistent with an internationally harmonized standard (e.g. European Union Commission Directive 2008/43/EC).*

#### Chapter 2.0, 2.0.5, heading

For the existing text, *substitute*

#### 2.0.5 Classification of articles as articles containing dangerous goods, N.O.S.

##### Chapter 2.0, 2.0.5.1, first sentence

For the existing text, *substitute*

Articles containing dangerous goods may be ~~transported~~classified as otherwise provided by these Regulations under the proper shipping name for the dangerous goods they contain or in accordance with this section.

##### Chapter 2.8, 2.8.4.3.5

$$\text{For } \frac{PGx_1}{GCL} + \frac{PGx_2}{SCL_2} + \dots + \frac{PGx_i}{SCL_i} \geq 1$$

$$\text{read } \frac{PGx_1}{GCL} + \frac{PGx_2}{SCL_2} + \dots + \frac{PGx_i}{SCL_i} \geq 1$$

For PGxi read PGxi

For SCLi read SCLi

#### Chapter 3.2, Dangerous goods list, for UN 1972, in column (6)

*Insert 392*

#### Chapter 3.2, Dangerous goods list, for UN Nos. 3090, 3091, 3480 and 3481, in column (6)

*Insert P911*

*Insert LP905 LP906*

#### Chapter 3.3, special provision 301, first paragraph, last sentence

For the existing text, *substitute*

When it is required to ensure liquid dangerous goods remain in their intended orientation, ~~package orientation labels meeting the specifications of ISO 780:1997~~orientation arrows shall be ~~affixed~~displayed on at least two opposite vertical sides with the arrows pointing in the correct direction in accordance with 5.2.1.7.1.

**Chapter 3.3, special provision 388, in the second, third and seventh paragraphs**

*For* consigned under the entries *read* assigned to the entries

**Chapter 3.3, special provision 392, in the table, second heading row**

*For* CNG tanks *read* CNG and LNG tanks

**Chapter 3.3, special provision 392, in the table, for ECE Regulation No. 110, in the second column**

For the existing text, *substitute*

Uniform provisions concerning the approval of:

- I. Specific components of motor vehicles using compressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion system
- II. Vehicles with regard to the installation of specific components of an approved type for the use of compressed natural gas (CNG) and/or liquefied natural gas (LNG) in their propulsion system

**Chapter 4.1, 4.1.4.1, P520, PP94, 4.**

*For* grammes *read* grams

**Chapter 4.1, 4.1.4.1, P520, PP95, 5.**

*For* grammes *read* grams

**Chapter 4.1, 4.1.4.1, P907, after the heading row**

*Insert* the following new row

|  |
|--|
| This instruction applies to UN No. 3363. |
|--|

**Chapter 4.1, 4.1.4.1, P911, (1)**

*For* the packaging has to *read* The packaging shall

**Chapter 4.1, 4.1.4.1, P911, (1) (b)**

*For* No flame will occur *read* No flame shall occur

**Chapter 4.1, 4.1.4.1, P911, (1) (c)**

*For* No projectiles will exit *read* No projectiles shall exit

**Chapter 4.1, 4.1.4.1, P911, table note a, in (b), last sentence**

*For* this hazards *read* these hazards

**Chapter 4.1, 4.1.4.1, P911, table note a, in (c), at the beginning**

*For* mitigations effects *read* mitigating effects

**Chapter 4.1, 4.1.4.1, P911, table note a, in (e)**

*For* the higher possible SOC *read* the highest possible SOC

**Chapter 4.1, 4.1.4.1, P911, table note a, (h)**

For the existing text, *substitute*

These scenarios shall be assessed over a period of time long enough to allow all the possible consequences to occur (e.g. 24 hours).

**Chapter 4.1, 4.1.4.3, LP903, second sentence**

For the existing text, *substitute*

The following large packagings are authorized for a single battery and for a single item of equipment containing batteries~~for batteries contained in a single item of equipment~~, provided that the general provisions of 4.1.1 and 4.1.3 are met:

**Chapter 4.1, 4.1.4.3, LP904, first sentence**

For the existing text, *substitute*

This instruction applies to single damaged or defective batteries and to and to single items of equipment containing damaged or defective cells and batteries~~damaged or defective cells and batteries contained in a single item of equipment~~ of UN Nos. 3090, 3091, 3480 and 3481.

**Chapter 4.1, 4.1.4.3, LP904, second sentence**

For the existing text, *substitute*

The following large packagings are authorized for a single damaged or defective battery and for a single item of equipment containing damaged or defective cells and batteries ~~contained in a single item of equipment~~, provided the general provisions of 4.1.1 and 4.1.3 are met.

**Chapter 4.1, 4.1.4.3, LP905, second row after the heading row**

For the existing text, *substitute*

The following large packagings are authorized for a single battery ~~and for cells and batteries contained in a single item of equipment~~and for a single item of equipment containing cells or batteries, provided that the general provisions of 4.1.1 and 4.1.3 are met:

**Chapter 4.1, 4.1.4.3, LP905, (2), first line**

For the existing text, *substitute*

~~For cells or batteries contained in~~For a single item of equipment containing cells or batteries:

**Chapter 4.1, 4.1.4.3, LP906, second row after the heading row, second line**

For the existing text, *substitute*

For a single battery and for a single item of equipment containing batteries ~~contained in a single item of equipment~~:

**Chapter 4.1, 4.1.4.3, LP906, (1), at the beginning**

*For* The large packaging has to be capable *read* The large packaging shall be capable

**Chapter 4.1, 4.1.4.3, LP906, table note a, in (b), last sentence**

For this hazards *read* these hazards

**Chapter 4.1, 4.1.4.3, LP906, table note a, in (c), at the beginning**

For mitigations effects *read* mitigating effects

**Chapter 4.1, 4.1.4.3, LP906, table note a, in (e)**

For the higher possible SOC *read* the highest possible SOC

**Chapter 4.1, 4.1.4.3, LP906, table note a, in (f), at the end**

For the packaging *read* the large packaging

**Chapter 4.1, 4.1.4.3, LP906, table note a, (h)**

For the existing text, *substitute*

These scenarios shall be assessed over a period of time long enough to allow all the possible consequences to occur (e.g. 24 hours).

**Chapter 5.2, 5.2.1.7.1**

For the existing text, *substitute*

5.2.1.7.1 Except as provided in 5.2.1.7.2:

- combination packagings having inner packagings containing liquid dangerous goods;
- single packagings fitted with vents; ~~and~~
- cryogenic receptacles intended for the transport of refrigerated liquefied gases; ~~and~~  
- machinery or apparatus containing liquid dangerous goods when it is required to ensure the liquid dangerous goods remain in their intended orientation (see special provision 301 of chapter 3.3).

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